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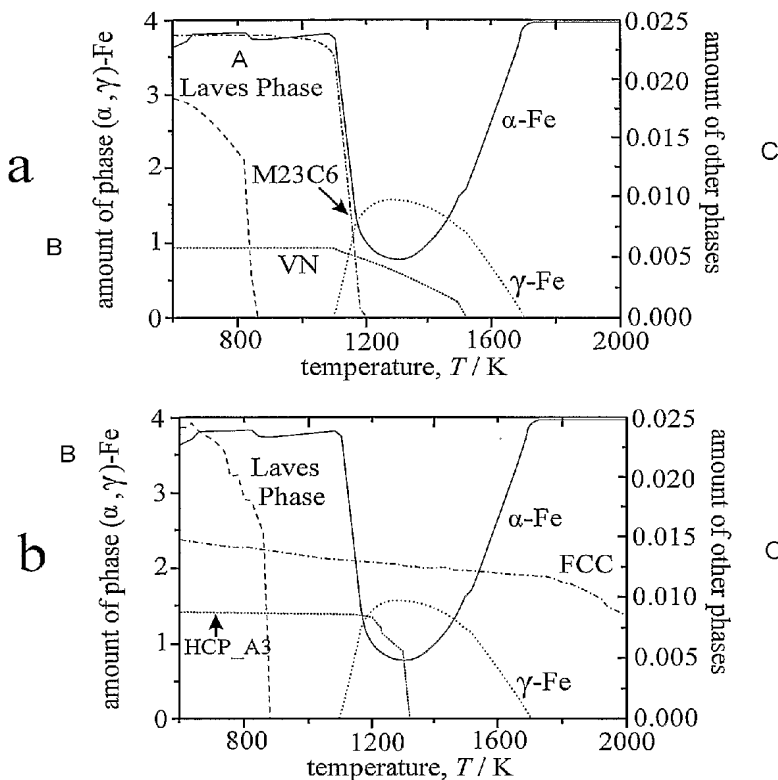
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(54) Title: HIGH CHROMIUM FERRITIC STEEL WITH 0.5 ATOMIC % HAFNIUM, PART OF WHICH IS ION IMPLANTED



(57) Abstract: The application relates to the problem of improving the corrosion resistance and creep properties of standard Cr-steels like E911 (table 1) at high temperatures. To solve this problem, a method of adding up to 0.5 atomic % Hf both during casting or moulding and by ion implantation is provided. The addition of Hf improves the corrosion resistance and creep properties inter alia, as it forms a finely distributed stable second phase and as the harmful M23C6 disappears, because all carbon is taken by Hf to form HfC.



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